Claims

<u>What is claimed</u>:

1.   A gain controller, comprising:

a measurement module including program instructions to measure a power level of a voice signal stream;

a gain factor setting module including program instructions to set a gain value by comparing the measured power level to a threshold; and

a gain adjustment module including program instructions to adjust the power level of the voice signal stream by applying the gain value to the voice signal stream.

2.   The controller of claim 1, wherein the gain factor setting module includes program instructions to compare the measured power level to at least two thresholds in order to set the gain value.

3.   The controller of claim 1, wherein the gain factor setting module includes program instructions to store measured power levels and a previously applied gain value to a memory.

4.   The controller of claim 1, wherein the gain adjustment module includes program instructions to apply the gain value, set by the gain factor setting module, to the voice signal stream to maintain the power level between a high threshold and a low threshold.

5.   The controller of claim 1, wherein the gain adjustment module includes program instructions to multiply the power level by the gain value.

6.   The controller of claim 1, wherein the gain adjustment module includes program instructions to add the gain value to the power level.

7.   A gain control system, comprising:

a switch to receive a voice signal stream from a voice signal source;

a gain adjustment module to receive the voice signal stream from the switch, the gain adjustment module including program instructions to adjust a power level of the voice signal stream by applying a gain value to the voice signal stream;

a measurement module including program instructions to measure a power level at a number of segments of the voice signal stream; and

a gain factor setting module coupled to the gain adjustment module wherein the gain factor setting module includes program instructions to set the gain value by comparing the measured power level to a threshold.

8.   The system of claim 7, wherein the gain adjustment module can adjust the gain before the voice signal stream has entered an output channel.

9.   The system of claim 7, further including memory to store a number of power level measurements taken at the number of segments in the voice signal stream.

10.   The system of claim 9, further including program instructions to add the number of power level measurements together to provide a total power level.

11.   The system of claim 10, further including program instructions to average the added power level measurements to provide an average power level.

12.   The system of claim 7, further including program instructions to compare the measured power level to two different high threshold levels.

13.   The system of claim 7, further including program instructions to compare the measured power level to a high threshold level and a low threshold level.

14.   A gain control system, comprising:

a voice signal source to produce a voice signal stream, the voice signal source coupled to a Public Switched Telephone Network (PSTN);

a media platform coupled to the PSTN and the voice signal source, the media platform having:

a switch to receive the voice signal stream from the voice signal source;

means for adjusting a power level of the voice signal stream; and

an output channel in communication with the PSTN to receive the voice signal stream from the media platform.

15. The system of claim 14, wherein means for adjusting the power level of the voice signal stream includes a gain controller having a set of computer executable instructions.

16. The system of claim 15, wherein the gain controller includes a measurement module, a gain factor setting module, and a gain adjustment module.

17. The system of claim 16, wherein the measurement module measures the power level of the voice signal stream.

18. The system of claim 16, wherein the gain factor setting module sets a gain value for application to the power level based upon measurement information from the measurement module.

19. The system of claim 16, wherein the gain adjustment module adjusts the gain applied to the power level based upon the gain value selected by the gain factor setting module.

20. The system of claim 14, wherein means for adjusting the power level includes program instructions stored in memory within the media platform and executed by a processor.

21. A method for adjusting the power level of a voice signal stream, comprising:

receiving a voice signal stream;

measuring a power level of the voice signal stream at a number of points in time;

comparing at least one of the power levels measured at the number of points in time with a threshold; and

adjusting the power level of the voice signal stream based on the comparison.

22.   The method of claim 21, wherein comparing at least one of the power levels measured at the number of points in time includes comparing at least one of the measured power levels to at least two thresholds.

23.   The method of claim 21, wherein adjusting the power level of the voice signal stream includes applying a gain value to the stream.

24.   The method of claim 21, wherein measuring the power level at a number of points in time includes measuring a power level of a number of segments of the voice signal stream.

25.   The method of claim 24, wherein comparing at least one of the power levels to a threshold includes comparing the measured power level at each segment with the threshold.

26.   The method of claim 21, wherein the method further includes averaging the power levels measured at the number of points in time and comparing the average to a threshold.

27.   A computer readable medium having a program to cause a device to perform a method, comprising:

receiving a voice signal stream;

measuring a power level of the voice signal stream at a number of points in time;

comparing at least one of the measured power levels with a threshold; and

adjusting the power level of the voice signal stream based on the comparison.

28.   The computer readable medium of claim 27, wherein adjusting the power level of the voice signal stream includes adjusting the power level in differing increments based on a proximity of the measured power level to the threshold.

29.   The computer readable medium of claim 27, wherein the method further includes defining an average measured power level of a number of segments.

30.   The computer readable medium of claim 29, wherein a power level of a newest measured segment replaces a power level of an oldest measured segment and a new average is calculated.

31.   The computer readable medium of claim 27, wherein adjusting the power level includes adjusting before the signal stream enters a T1 channel connected to a Public Switched Telephone Network.

32.   The computer readable medium of claim 27, wherein receiving a voice signal stream includes receiving a voice signal stream stored in memory.

33.   The computer readable medium of claim 27, wherein receiving a voice signal stream includes receiving a voice signal stream output from a text-to-speech application program.

34.   A method for adjusting the power level of a voice signal stream, comprising:

measuring a power level of a voice signal stream at a number of points in time;

comparing a number of the power levels measured with a number of thresholds; and

gradually adjusting the power level of the voice signal stream over time based on the comparison to bring the power level toward a target output level.

35. The method of claim 34, wherein gradually adjusting the power level includes changing an amount of adjustment based upon a proximity of the power level to the target output level.

36. The method of claim 34, wherein comparing a number of power levels includes comparing the power levels to four thresholds.

37. The method of claim 36, wherein gradually adjusting the power level includes increasing an amount of adjustment when the power level is outside a first set of thresholds with respect to the target output level.